

## » WIRELESS

## Magellan Personal Nav Integrates Cloud, Social Media, Real-Time Location Data

Magellan has announced the Magellan SmartGPS, a GPS device based on navigation integrated with social, local and mobile content, including Yelp and Foursquare, through Magellan's cloud-enabled Smart Ecosystem. The Magellan SmartGPS navigation device wirelessly syncs the user's navigation data, such as favorite places and contacts, with a smartphone or personal computer. The device intelligently delivers stored and dynamic location-based information to the GPS display that is personalized to the driver's locale.

The Magellan SmartGPS communicates with Magellan's

custom-built Smart Ecosystem, a cloud platform for a database of constantly-updating, location-relevant social media and navigation content that is automatically pushed to the SmartGPS display to create a unique driving experience, the company said.

Magellan SmartGPS users can simultaneously view maps, navigate, and see reviews, tips and offers from Yelp and Foursquare for nearby restaurants, stores and services, plus navigate to those locations without needing to use an additional device or application. As a vehicle progresses on its route, the SmartGPS accesses



the cloud-based Smart Ecosystem to deliver a variety of location-relevant information "squares" that are displayed on the SmartGPS screen and graphically flip between nearby service establishments. When the user taps on a square, detailed profile information is displayed including address, phone, special offers, and consumer reviews, plus an icon to navigate to the destination. The SmartGPS delivers current gas prices in the vicinity, weather, traffic events and speed camera warnings.

## » PROFESSIONAL OEM

## Advanced Navigation, KVH Release Spatial FOG

Advanced Navigation, in collaboration with KVH Industries, has announced its new Spatial FOG GNSS/INS. Spatial FOG is a ruggedized GNSS-aided inertial navigation system and AHRS that provides accurate position, velocity, acceleration and orientation under demanding conditions. It combines the new KVH Industries 1750 fiber-optic gyroscope-based inertial measurement unit with magnetometers, a pressure sensor and a dual-frequency RTK GNSS receiver. These are coupled in a sophisticated fusion algorithm to deliver highly accurate and reliable navigation and orientation, the companies said.

Spatial FOG contains a dual-

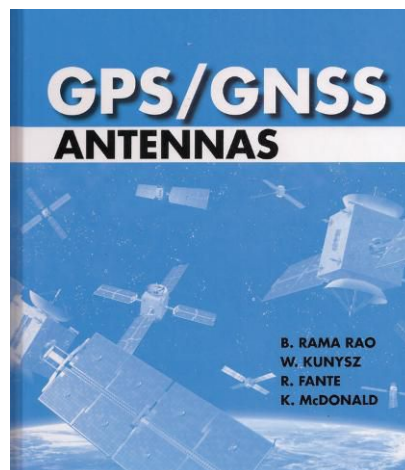
frequency RTK GNSS receiver that provides 1-centimeter accuracy positioning and supports all of the

current and future satellite navigation systems, including GPS, GLONASS, Galileo and Compass.

A next-generation memory backup system allows Spatial FOG to hot start inertial navigation from its last position in 2 seconds and obtain a GNSS fix in as little as three seconds. The memory backup system lasts for the lifetime of the product and will provide backup for 24 hours without power.

Spatial FOG's internal filter runs at 1,000 Hz, and data can also output at this rate over high-speed RS232 or RS422. This allows for control of dynamically unstable platforms, the companies said. Spatial FOG is also highly tolerant to both shock and vibration thanks to the performance of the KVH 1750 IMU design and advanced filtering.

Spatial FOG supports a wide range of peripherals including external GNSS receivers, odometers, DVLs, USBLs and NMEA devices. It also supports both industry-standard NMEA output and a binary protocol.



## GPS/GNSS Antenna Book

Artech House has published a new book on GPS/GNSS antennas, the requirements of modern systems, and recent and developing applications. The 574-page book discusses antenna characteristics, theory of operation, gain, bandwidth, polarization, phase center, mutual coupling effects, and integration with active components. The authors work at the MITRE Corporation and NextNav LLC. See [www.artechhouse.com](http://www.artechhouse.com).